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ABSTRACT

Analysis of a dialect's phonological change over time compares the vowel systems of individual speakers in 1971 and 1984. Subjects were four speakers of Montreal French. Two were born between 1910 and 1920, and two between 1944 and 1950. One individual in each pair was upper middle class and one was not, and no change of social status occurred during the period of the study. The linguistic features examined in the speech of the individuals include chain shifting and lexical diffusion. The three following conclusions are drawn: (1) lengthened vowels do not follow the pattern of chain shifting proposed in previous research; (2) the hypothesis that lexical diffusion is necessarily ultimately resolved is not supported; and (3) fine acoustic phonetic analysis demonstrates that phonological changes can continue after adolescence for native speakers of a dialect. The change is not conscious, and is more significant for speakers whose phonology was originally more conservative. (MSE)

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REALTIME VS. APPARENT TIME CHANGE IN MONTREAL FRENCH*

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ABSTRACT: Sociolinguists (most recently Labov 1982 and Trudgill 1986) have assumed that dialect is stabilised by adolescence. Recently Montreal French (MF) data has been collected by a group of researchers headed by Pierrette Thibault and David Sankoff which permits the comparison of the speech of individual speakers in 1971 and 1984. The comparison of these data seriously challenges Labov's and Trudgill's theories. Perhaps Giles' Speech Accommodation Theory (SAT), and recent work by Thibault(1983), help explain how such disproof of the generally accepted theories can arise.

INTRODUCTION: Both chain shifting and lexical diffusion are relevant to the analysis of sound change in the present corpus. These three aspects of the study of change in the MF vowel system are clearly interrelated. Each speaker's vowels were analysed within this perspective.

1. CHAIN SHIFTING: The presently accepted theory of vowel shifting (Labov, Yaeger & Steiner 1972) is that longer vowels will be more peripheral, and that --if and when they shift-- they will shift upward -- as in Figure 1 --, while shorter vowels will be less peripheral and fall or 'collapse' inward -- as in Figure 1'. -- While a theoretical discussion of chain shifting is not the central concern here, it is critical to remember that contrary to expectations based on earlier studies, the OLDER speakers have the more raised vowels shown on Figure 2, while the YOUNGER speakers have the more open vowels shown on Figure 3. The nuclei of (phonologically) mid-low vowels advance from the older mid-high position shown in Figure 2 to the newer lower position shown on Figure 3. This neogrammatical change is not a conscious change. [1] To take one example from Table I, the older pronunciation of père, 'father', would be [peɹr], the newer pronunciation [paɹR] (which can be corrected to [pa:R]).

2. LEXICAL CLASSES and LEXICAL DIFFUSION: The second aspect of change which must be considered for the present study is the comparison of lexicalist and neogrammarian components of sound changes found in these data, and determining which theory is more appropriate for given aspects of the linguistic system being analysed. The chain shifting of vowels within a linguistic system is generally assumed to be a neogrammatical change (Labov 1981). That is, presumably the change occurs in the phonological component of the grammar, and applies to all words simultaneously. Labov showed that even the most regular neogrammatical vowel shifts appear to have a strong lexical component. In some cases a lexical residue of historical/etymological classes remains, which does not necessarily inhibit the general neogrammarian theory of chain shifting. In other cases, the lexical classes arose because all the vowels in an older class did not shift simultaneously, but left classes which we will refer to as lexical exceptions.

In the data to be discussed today, both types of lexical classes occur: Table 1 gives examples of what we call residual lexical classes which are found in the data, and

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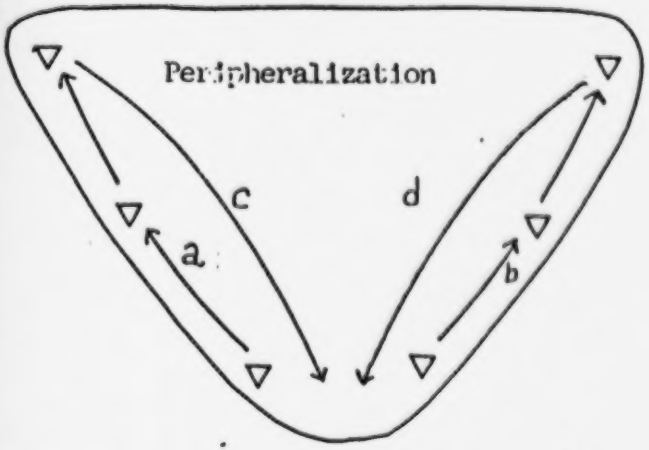
Figure 1. Patterns of chain shifting, from Labov, Yaeger & Steiner

Pattern 1



Pattern 1'

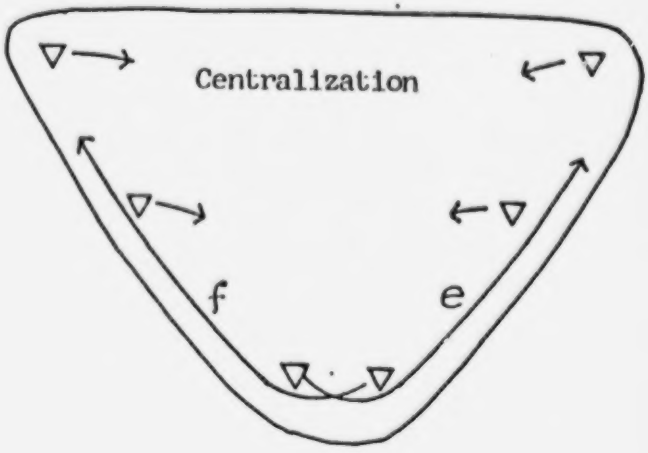


Figure 2. Conservative QF Pattern

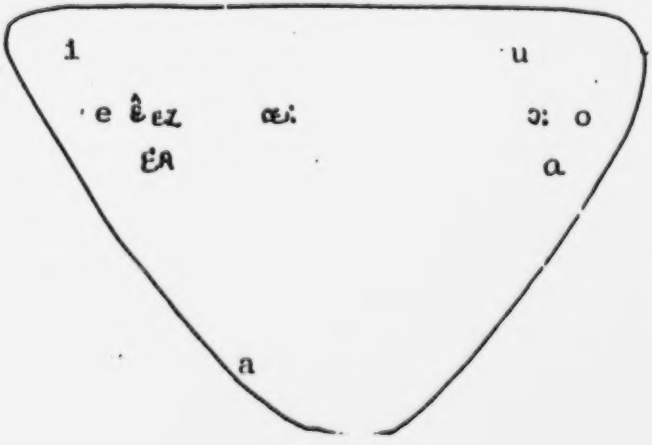
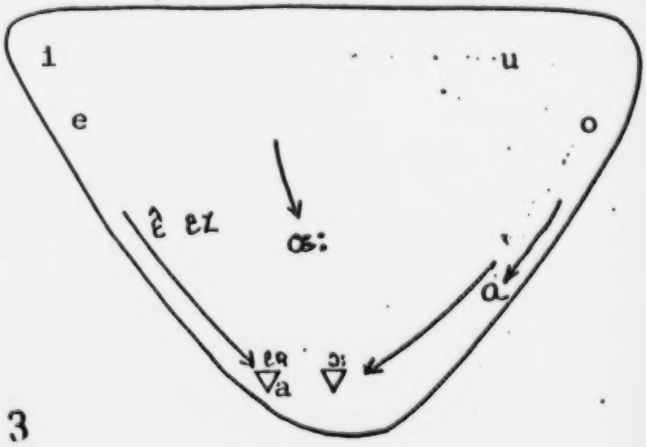


Figure 3. Innovative QF Pattern



compares them with what we regard as the 'main' class, for present purposes. It also gives you the code for the classes which will be found on the figures of vowel charts which will follow. Table 2 gives examples of exceptional lexical classes with their codes. Table 3 shows minimal pairs of vowels which would belong to the same class if lexical diffusion of the 'exceptional' classes had not taken place. The first group of lexical exceptions on Table 3 is conservative. That is, they retain an older, raised, pronunciation longer. In contrast the vowel position for alors is advanced ahead of its class: It lowers toward the new position portrayed on Figure 3 before other vowels in the same phonological 'class'.

Can we compare residual lexical classes with exceptional lexical classes? Quantitative methods reveal that the residual lexical classes from Table 1, which were presumed to be merged into a general class of mid-low long vowels (ɛ:,ɔ:,œ:), have not merged. The larger lexical classes remain distinct for vernacular speakers from all age groups. However, the lexical subgroups which lengthened last (shown on Table 1 as 'VR') include the most exceptions (which do not shift with the rest of their class), but these exceptions are being 'regularized' among the younger speakers. -- Bête-pâte ('V') does not merge with the paire-part class ('VR') even after two centuries of apparent merger, while lexical diffusion of père-mère ('ERF') or encore ('ENC') is being resolved among younger speakers -- some of whom maintained a clear difference between these exceptions and their 'main' classes thirteen years ago. And here we return to the main point of this paper -- which is to show that both neogrammarian and lexical aspects of sound change are advancing in real time as well as apparent time for at least some speakers.

3. SOUND CHANGE IN REAL AND APPARENT TIME: A comparison of the vowel systems of individual speakers in 1971 and 1984, will show that some speakers have considerably altered their vowel systems. Given that this expressly contradicts an assumption of recent sociolinguistic analysis, it will form the main point of the present paper.

THE THEORY OF DIALECT FIXING:Labov(1966) demonstrated quite clearly that sound change can be analysed by comparing the rotation of vowels in the speech of older and younger speakers from the same community. Since it is so clear that this change in apparent time occurs and is measurable, it was inferred that speakers within a given community must no longer be able to change their dialect after a certain point, otherwise older speakers might adapt so radically to newer forms that even fine phonetic analysis could not determine changes across different age groups.

By Labov, et al (1968) it appeared, from the speech of the children and teenagers analysed for that study, that data from preadolescents revealed no obvious evidence of style shifting, while adolescent and older speakers could style shift, but appeared to have a 'fixed dialect' of their own.

Chambers and Trudgill (1980) pointed out that while the 'change in apparent time' which Labov had been studying could be determined from the comparison of the interviews of older and younger speakers, it was not thereby proven that this degree of change accurately reflected the actual change, which they referred to as 'change in real time'. While they did not produce evidence either to destroy or uphold the theory that change in apparent time accurately reflects change in real time, they made clear that evidence should be gathered to either support or modify the theory.

TABLE 1. Lexical residue: Examples of the historical vowel classes of French to be discussed. (The meat/mate distinction in Belfast English is also a residual lexical class.) On the figures, each class will be represented by its code.

#	change (code)	CLASS	Exs: (ɑ:)	(e:)	(ø:/œ:)	(o:/ɔ:)
1	VSK>VK(V)	'bête-pâte'	pâte	bête	jeûne	apôtre
1'	Vz>V:z (VZ)	'pèse-base'	base	pèse	vendeuse	rose
2	Vss>V:s (VS)	'baisse-passe'	passe	baisse	--	bosse
(3)	Vr>V:r(VR)	'paire-part'	part	paire	peur	port

TABLE 2. Lexical exceptions from diffusion: Examples of different groups of lexical exceptions to be discussed. (Exceptions to (æh) raising -- like am.can in New York, or ran.swam.began in Philadelphia pose a similar complication of a negrammatical rule.) On the figures, each class will be represented by its code.

#	Class (code)	Pseudo-class	Examples	Gloss
(3)	'paire-part'(F)	family/church	père, mère	'father,mother'
	(ENC)	'encore'	encore	'again, later'
		'mort'	mort	'dead'
	(G)	'weak word(s)'	leur	'their'
	(AL)	'alors'	alors	'thus,therefore'

Table 3. Minimal pairs formed by regular and diffused members of the paire-part class. On the figures, each class will be represented by its code.

Regular Class			Lexical Exceptions			
Word	gloss	[transc]	Word	gloss	[transc]	(code)
paire	pair	pɛ:r	père	father	pe:r	(F)
maire	mayor	mɛ:r	mère	mother	me:r	
mer	sea	mɛ:r				
mords	bite	mɔ:r	mort	dead	mo:r	(ENC)
leur	theirs	lœ:r	leur	their	liør	(G)
ors	but	ɔ:r	alors	therefore	alɒ:r	(AL)

Both Labov and Trudgill have subsequently come to the conclusion that dialect is 'fixed' -- or to use Fromkin's phrase (1987) 'hard wired' into the brain -- by adolescence, or perhaps even by the age of 8.[2] The evidence which they have presented in support of this conclusion is the following: Both Payne (1980) and Trudgill (1986) found that only speakers who enter a new dialect area before that age and have extensive network ties outside their immediate family can 'learn' the elaborate lexical classes which occur in the Philadelphia and Norwich dialects (respectively). In fact, Trudgill found that even speakers born in Norwich might not pick up the lexically distinct (ow) classes if their mother is not native to the area.[3] Given the perspective provided by our understanding of lexical classes, we can even add that while the lexical classes which cannot be learned in Norwich are true, historically **residual lexical classes** like those found on **Table 1**, the lexical classes which are not learned by new-Philadelphians are **lexical exceptions** like those found on Table 2. In short, according to these studies, we should assume that both types of lexical classes **cannot** continue to change past adolescence. Since phonological change is presumed to be 'wired' in by adolescence, while word-by-word lexical change can continue throughout a speaker's life (Labov 1982) we can assume that if **lexical** change is arrested, then it is even more obvious that **neogrammatical** changes cannot continue past adolescence. There is, of course, one possible weakness to this argument: Even granted that adolescent immigrants to an area can no longer learn the new dialect's pattern, does that prove that natives to an area cannot continue to advance changes in their own dialect as they get older?

THEORY FOR DIALECT CHANGE PAST ADOLESCENCE: While, as we see, two major theoreticians of language change have accepted a biological understanding of language learning which entails that language cannot change for a given individual after a certain age, two lines of theoretical reasoning would lead us to a contrary conclusion.-- Both social psychologists (Giles 1984) and anthropologists (Thibault 1983) maintain theoretical positions which might entail that dialects are **not** fixed by adolescence. Their positions differ in detail, but can be combined for present purposes.

Giles, and other social psychologists, have done work which highlights the social needs which influence speech. They claim that speakers have social psychological needs which prompt them to accommodate their speech toward that of other speakers with whom they interact. The theory does not require that actual change in the dialect occurs: The travel agents' data studied by Coupland (1980,1984) and Hindle (1980), for example, revealed extensive style variation rather than dialect change.

In the late seventies David Sankoff proposed that speakers' needs for the **'legitimated language'**[4] in their workplace influences their dialect choice (Sankoff & Laberge 1978). For example, someone very rich who runs a contracting firm will have much less need for the legitimated language than (say) a switchboard operator or a sales-person in one of the fancier department stores from Labov (1972)'s department store survey. Thibault proposes further that speakers' needs for adapting their speech are very different when they are members of the youth culture from when they have to make a living. According to her theory, they may actually change their vernacular considerably while in the workforce. Her proposal is consistent with SAT, but claims that **dialect change** can take place. If Thibault is right, social dialect (theoretically) **should not** be 'set' until speakers have spent some considerable time in the work force.

Of course all this theorizing is irrelevant if speakers' phonology is biologically 'fixed' by adolescence. On the other hand, if, as Thibault pointed out, speech is important to the wage-earner in a very different way from its importance within the

youth culture, it would be surprising if these clear needs were not meetable, because (deplorably) speakers' dialects are 'wired in' or 'fixed' before they have left the youth culture! Since the world of linguistic symbols is so powerful, we must at least check for the possibility of the continuation of dialect development into the ages when speakers decide for themselves what they wish their lives to be. Has there been any data-based evidence which supports Thibault's claim?

In fact, until recently there was no empirical data which recognised that such marketplace style shifting could influence core dialect phonology. However, if we return to Payne's (1980) study on which the 'discovery' of what we can refer to as the 'hard-wiring' theory was based, we find that even for immigrants to an area, dialect changes which are more neogrammarian in character can be learned at later ages. Shockey (1984) also found that a fine analysis of the speech of four US immigrants to England reveals a strong shift toward the British English norm even when talking to other Americans.

Since everyone agrees that word-by-word, or lexical, change can continue after adolescence, we should not be surprised to find data which demonstrate such change: In fact, the critical difference between Labov (1982) and Trudgill's (1986) recent positions and Thibault's (1983) lies in the acceptance or rejection of the possibility that **phonological** change can continue after adolescence. However, it is impossible to understand the sound changes which have taken place without clarifying how data was gathered to carry out the study.

THE DATA BASE: In order to attempt any analysis of sound change in real time one must have not only a data base with sufficiently rich choice of speakers to provide a cross section of the community, but one for which there are speech samples of the same speakers at two different times. The Montreal French corpus is already quite well known within the sociolinguistic community. In 1971, sociolinguistic interviews of Montreal French speakers from all walks of life were carried out (Sankoff, et al. 1973). In 1984, half of the original speakers were reinterviewed. One of the primary goals of the new project (Thibault & Vincent 1987) was to determine to what degree an individual's speech patterns had changed between these two interviews. With that in mind, the interviewers were trained to use a style as similar as possible to the style used in 1971.[5]

Auditory analysis of a subset of the 1971-1984 corpus has revealed a discrepancy between change in apparent time and change in real time. The acoustic analysis to be reported here confirms that some Montreal speakers have changed their speech patterns significantly between 1971 and 1984.

Acoustical Analysis: The vowels on Figures 4-7 include all mid-low vowels,and low vowels, and two stable vowels which will provide a base for normalization -- [o:] (as in the word for 'word',mot[mo:]) and [i:] (as in the word for 'put',mis[mi:]). These are the independent variables. Tokens of the **residual** classes (from Table 1) and the **exceptional** lexical classes (found on Tables 2 and 3) were analysed separately, and will be represented on the Figures which follow. The tables provide the codes for those classes presented here.[6]

Choice of speakers: Table 4 presents relevant background information for speakers whose vowel charts are presented below. Speakers to be used for the study were chosen for the following characteristics in order to maximize the chance that **significant** changes will be measurable:

--**Age**: Following the theory proposed by Thibault, speakers who were already in the work force when first interviewed in 1971 (those born, say, before 1950), but who had not yet left it (born after 1910), could be studied. Speakers to be analysed were chosen from the two extreme age poles possible within this framework. Thus, speakers born between 1910 and 1920 were contrasted with those born between 1944 and 1950.

--**'Class'**: Following the theory of socio-linguistic marketplace proposed by Sankoff and Laberge (1978), both speakers characterised as having a great need for the 'legitimated' language variety in their life in 1971 -- who have a high linguistic marketplace (or 'ML') index -- and speakers characterised as having less need for the legitimated language variety were analysed. These two groups are (very roughly) equivalent to designations according to classes of 'upper middle class', and 'working class', respectively.

--**Gender**: Earlier impressionistic analysis showed that the vowel shift being analysed follows the same S-curve pattern as many other changes which have been studied in North America: That is, in the analysis of the 1971 corpus, older women with low ML index had already carried the vowel change to completion (as shown schematically on Figure 3) along with most younger speakers, but men with lower ML tended to be most conservative, so that even some of the younger men with low index ratings still maintained a vowel pattern similar to the one found on Figure 2. Given that men are most conservative in 1971, it is possible that they are more likely to continue to advance this chain shift after 1971. The speech of men from the two 'ML' and age groups isolated have been analyzed, and the results confirm the fact that phonology can continue to evolve after adolescence. This evidence is a radical departure from expectations based on Labov's and Trudgill's recent publications.

Table 4. Men whose Vowel Diagrams are presented.

SPEAKER	BIRTH DATE	EDUCATION	ML	
73	1920	20+	.84	-
30	1914	7	.33	(+)
25	1944	20+	.84	(+)
2	1946	9	.09	+

The data to be presented are not schematic drawings like those in Figures 1-3, but are plotted from acoustical measurements. Each diagram uses the traditional format for formant displays which most closely resembles an articulatory vowel diagram.[7] First let us look at older speakers' data.

Speaker 73: Let us compare the 1971 and 1984 patterns for an older medical specialist, Speaker 73. After the age of 50, little change should be ex-pected for a speaker. In addition, Figure 4 shows that Speaker 73's non-high vowels were not too conservative to begin with, and we are not surprised that most of 73's vowel pattern does not shift between 1971 (marked with the codes) and 1984 (shown, where significantly different, with vector arrows). Note that monophthongal vowel nuclei for this speaker

reflect the 'legitimated language': Mid-open vowels overlap neither mid-high nor low vowels. Nuclei of exceptional classes are 'merged' with the main (ɛ:r) and (ɔ:r) vowel classes, while the residual classes remain separate. The arrows show that the nuclear positions of residual classes have lowered toward the new norm along with (ɔ:r).[8]

Speaker 30: Figure 5 shows that Speaker 30's 1971 vowel pattern is more vernacular than 73's, but was already advanced toward the newer norm, and only residual classes are unmerged. Vector arrows show that (ɔ:r) has shifted toward the new vernacular norm, and some subgroups of his (ɛ:) have continued to advance quite significantly toward /a/.

Now let us look at two YOUNGER SPEAKERS. Remember that by 1971 most speakers had already shifted to the newer vowel system shown on Figure 3, and so, like all the women, are less likely to have a significant shift toward that position later.

Speaker 25: was a pediatric resident in 1971, and is a pediatrician today. Figure 6 shows that in 1971 nuclei of both the residual and exceptional classes had already advanced toward the primary classes, which are already quite open: (ɛ:) overlaps /a/, and (ɔ:) overlaps /ɑ:/. The vectors show that in 1984 the vowel targets have advanced further: (ɛ:) is behind the /a/, and (ɔ:) in front of the /ɑ:/.

Speaker 2: was, and is, a manual laborer; Figure 7 shows that in 1971 his vowel system was quite conservative: in fact, earlier auditory analysis showed him to be among the most conservative of even the younger working class men, despite the fact that his was one of the most relaxed interviews.[9] Note that in 1971 the monophthongal nuclei of words in the 'ERF' class (one of the conservative classes of lexical exceptions shown on Table 3) patterns with the bête-pâte, or 'E' class, and that the 'ENC' class (another conservative class on Table 3) is still even more closed than /o/,[10] while other (ɔ:r) and (ɑ:) are also quite high.

Speaker 2 has not changed his neighborhood or his type of work. Both his interviews were with his wife and children present, and were very similar in style. Thibault would project that Mr.2 would accommodate toward the newer pattern in 1984. Of course, since he was already twenty-five, and had been working for eight years, Labov would have projected that his dialect would be 'wired in', and that no change would occur between 1971 and 1984. However, when we compare the interview data, we find that his phonological system has advanced radically toward the newer pattern! Figure 7 reveals that statistical analysis of individual lexical classes shows significant change in almost all vowel positions for those classes shown here. Changes between the 1971 and 1984 data for diphthongized tokens is even more significant. By 1984, most classes have moved toward the newer norm. While the residual lexical classes are still distinct, the exceptional classes have remerged with the main class -- the lexical diffusion has 'been resolved'.

CONCLUSIONS: While only four speakers have been looked at, the data permit some conclusions to be drawn.

1. The lengthened vowels do not follow the pattern of chain shifting proposed in Labov Yaeger and Steiner (1972), as shown on Figure 1. The vowels went from the raised position on Figure 2 to the lowered position on Figure 3, but fall from mid-high

position without having gone through high position. We find no evidence that the nuclei of long vowels become less peripheral at any point.

2. Our results contradict the hypothesis that lexical diffusion is necessarily ultimately 'resolved'. We see that the residual lexical classes like those on Table 1 remain separate, while the exceptional lexical classes, like those on Tables 2-3 are remerged with the relevant class.

3. While both Labov (1982) and Trudgill (1986) have recently claimed that phonology is 'wired in' by adolescence or earlier, fine acoustic phonetic analysis demonstrates that phonological changes -- that is, the advancing chain shift of (phonologically) mid-low vowels from the mid-high position shown in Figure 2 to the lower position shown on Figure 3 -- can continue after adolescence for native speakers of a dialect. This is not a conscious change. Not surprisingly, the difference is much more significant among speakers whose phonology was more conservative originally. The difference is less likely to be statistically significant if the speaker's vowel system was more innovative in the original study, even if the speaker is under forty. We already have clear evidence that in a given interview style, four postadolescent speakers who have not changed their social positions, have, nonetheless, significantly advanced their interview style of speech toward the newer norm.

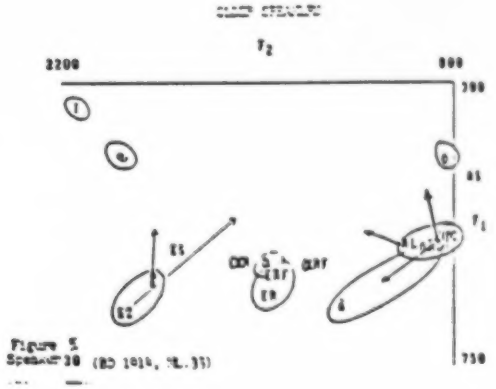


Figure 5
Speaker 20 (BD 1914, ML .31)

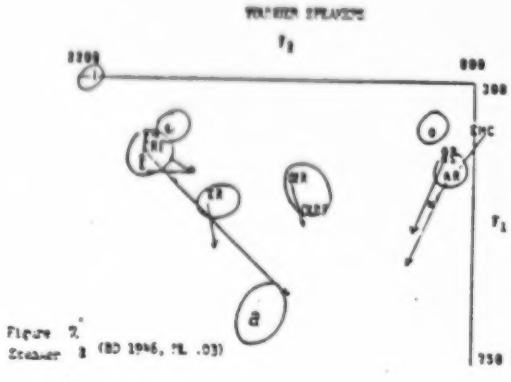


Figure 2.
Speaker 3 (BD 1946, ML .03)

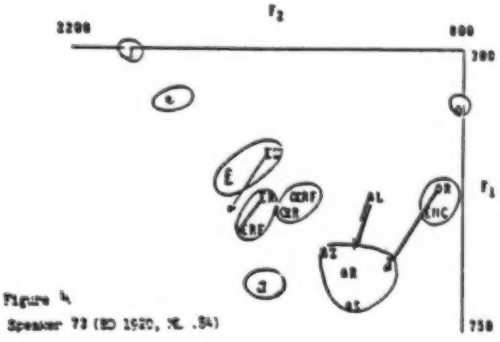


Figure 4
Speaker 73 (BD 1920, ML .84)

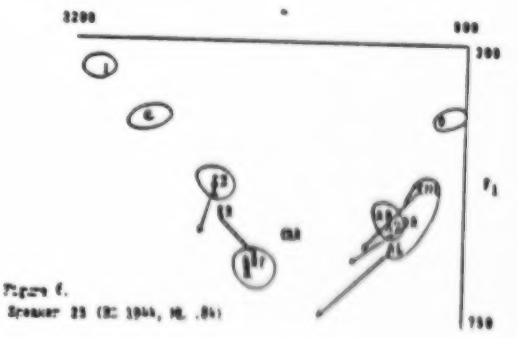


Figure 6.
Speaker 23 (BD 1944, ML .84)

Notes:

* Work on this project would have been impossible without funding from the US National Science Foundation (#BNS 8608714), my affiliation with the Center for Applied Linguistics in Washington DC, and with the Anthropology and Linguistics Depts. at the Université de Montréal. The data were primarily collected by the members of the Ethnolinguistics Lab at the Université de Montréal Anthropology Dept: Thanks are due primarily to Pierrette Thibault, David Sankoff and Henrietta Cedergren for allowing me access to their data, and to Laurent Santerre for access to his laboratory. Statistical advice was provided by David Sankoff, and statistical support by Marc Bourdeau. I especially profitted from discussions & correspondence with Pierrette Thibault, John Harris, Crawford Feagin and Gregory Guy. Remaining infelicities and heresies are my own. Earlier versions of this paper were delivered at the Canadian Linguistics Association meetings in 1987, and at the Sociolinguistics Symposium in 1988.

1 Another important factor, which is beyond the bounds of the present study, is that the diphthongs then become monophthongs. This is assumed to be a change from above. The initial assumption was that the change from above [that is, the monophthongization of diphthongs] would advance (perhaps) more rapidly than the change from below [the change from the raised nuclei shown on Figure 2 to the lowered nuclei on Figure 3]. Evidence bearing on this problem will be presented elsewhere.

2 Researchers in neurolinguistics (Fromkin 1987), and in language learning (e.g., Lenneberg 1967; Krashen 1981) have come to similar conclusions.

3 This helps explain why 'mergers advance at the expense of phonological distinctions' (Labov 1982). If phonological distinctions can only be maintained by speakers with at least the mother native to the dialect area, the population must remain very stable for a distinction to survive.

4 Sociolinguists have used the term 'Standard', or 'Prestige' dialect. Those who discuss diglossic speech situations are likely to refer to it as the H (for 'High') speech form. Here we will follow the terminology of the Montreal research group which refers to this more prestigious form as the speech 'legitimated' by the ruling classes.

5 All of these interviews have been transcribed, and archived on the University of Montreal CDC, which makes them accessible for linguistic research. Copies of both 1971 and 1984 interviews, and their transcripts, have been made available for this project. In addition, tapes of other speakers have been collected from the archives of the National Library and of Radio Canada.

6 Diphthongization provides the last of the major linguistic variables under analysis, but the vowel charts which appear on the transparencies only display the means for the monophthongal tokens.

7 All tapes used for acoustic analysis are high-quality second generation tapes (for 1971 interviews) or cassettes (for 1984 interviews, and for data requested from the National or Radio Canada Sound Archives). Vowel tokens to be analyzed are coded and spliced onto a tape file which is then digitally analyzed, using the ILS program package (Markel, et al 1985.) This rough analysis is used to determine duration and the first two formant peaks for each vowel. Computer-analyzed vowels are measured immediately after the transition from the preceding consonant (as discussed in Labov, Yaeger & Steiner 1972), and again immediately before the transition to the following

consonant. These transitions are longer in MF than in the English dialects reported in earlier studies. The program then measures the duration, and presents the analyst with the formants as tracked. If formants, amplitudes, and band-widths are in order, the code, and initial and final formant frequencies for F_1 and F_2 are enterred into the memory, along with their F_0, and the duration. If problems are evident from the tracked formants as presented, the material is analyzed using FFT sections. Paradis (1985) found that even measuring with the Real Time Analyzer, using only fully stressed tokens, approximately 20% of his measurements had to be discarded. Since this project attempts to analyze unstressed as well as stressed vowels, the abort rate is presumably higher. Vowels shorter than 55msec. are not retained in the figures presented here.

[8] Yaeger-Dror and Kemp (in press) found that all male speakers were more conservative for (ɔ:r) in 1971, while only the older men with low ML and little education were conservative with (ɛ:r)

[9] In both interviews, informality is obvious from the topics chosen by the interviewee, who has strong, unorthodox political opinions to voice and who is not embarrassed in either interview to discuss raunchy topics generally avoided between strangers. Informality is revealed not only by the laughter, speed and intonational variation, but by his relaxed use of 'sacrage': Among the speakers interviewed, when they are asked to define 'bad speech', most speakers (including Mr. 2) refer to profanity -- 'sacrage' --as archetypical of 'bad speech'. Yet, Mr. 2's use of profanity in both interviews marks them as quite informal, even relative to other informal interviews in the corpus as a whole. In short, Mr. 2's speech is consistently informal in both interviews.

[10] The difference between 'ERF' and other 'ER', and between 'ENC' and other 'OR' is highly significant.

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